

*An Account of the Fossil Skeleton of the Proteo-Saurus. By Sir Everard Home, Bart. V.P.R.S. Read March 4, 1819. [Phil. Trans. 1819, p. 209.]*

After reverting to the contents of his former papers on this subject, Sir Everard describes in the present communication a specimen of the animal nearly in an entire state, and of which most of the parts are in such good preservation, as to enable him to correct and complete his former accounts, the only parts wanting being the bones of the pelvis and the lower part of the sternum. A drawing of the natural size accompanies this paper, in which, says the author, the parts are so clear and distinct, as to render any verbal description superfluous.

*Reasons for giving the name Proteo-Saurus to the Fossil Skeleton which has been described. By Sir Everard Home, Bart. V.P.R.S. Read April 1, 1819. [Phil. Trans. 1819, p. 212.]*

The specimen of the fossil skeleton, described in the author's last paper, having proved that the animal had four legs, and that its progressive motion through water is similar to that of fishes, he was led to look for its place in the scale of gradation between amphibia and fishes. With this view he examined the vertebræ of the Proteus, which he found cupped at both extremes, in which respect it resembles the fossil animal: it is also nearly allied to it in having feet; and were it not that the bones of the chest show that the lungs were more capacious, and that in the largest specimens there is not sufficient space between the occiput and first rib for gills, Sir Everard would have ventured to have called it Proteus; but as it is highly probable that this animal breathed by lungs only, and appears to have been capable of the two kinds of progressive motion, it may be called Proteo-saurus.

*Some Observations on the Peculiarity of the Tides between Fairleigh and the North Foreland; with an Explanation of the supposed Meeting of the Tides near Dungeness. By James Anderson, Captain in the Royal Navy. Communicated by the Right Hon. Sir Joseph Banks, Bart. G.C.B. P.R.S. Read March 25, 1819. [Phil. Trans. 1819, p. 217.]*

After adverting to the circumstances upon which the generally adopted opinion is founded, that the tides meet between Dungeness Point and Rye Harbour, Captain Anderson describes the peculiarity of the Channel at that point, and its very sudden contraction between Dungeness and Cape D'Alprée, and between the South Foreland and Calais Point; so that the western tide meets with a resistance to its course at Dungeness and Cape D'Alprée; where, from the passage being insufficient to discharge the water brought from the westward, it must accumulate until it deepens and widens the Chan-